



**ENGINEERING**  
TEXAS A&M UNIVERSITY

# Introduction Edge convergence?

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# About me

## Education

BS 1986 USP-Brazil / MS 1990 USP/ Ph.D. 1997 Georgia Tech

## Professional (Academia → Industry → Academia )

- Professor at USP-Brazil 1996-2000 (tenure 2000)
- Research Scientist at IBM TJ Watson 2000-2012  
Manager since 2007; several other leadership roles
- Principal Engineer & Manager, Qualcomm Research (2012-2014)
- Professor and Department Head, Texas A&M University  
On my way out of administration 😊

## Research Community Service

- Steering Committees (SOSP, HotCloud, IEEE IC2E, IEEE IoTDI)
- Board of CRA-W  
URMD Grad Cohort, DSW, DLS, Travel Grants
- Co-founder of Latinas in Computing



## **Do IoT workloads introduce new opportunities for convergence?**

- Smart grid
- Smart manufacturing
- Smart city
- Smart road integrated with autonomous vehicles

So far not very “smart”, and IoT part is relatively simple

# Convergence and the edge

- What should the edge platform look like?
- Service placement on edge computing
- Lessons/bias from previous projects:
  - dynamic update of services
  - storage can't be afterthought
  - killer app needs to show efficiency gain that pays for the impact on problem determination
- Veracity / velocity of data production may mandate new level of convergence